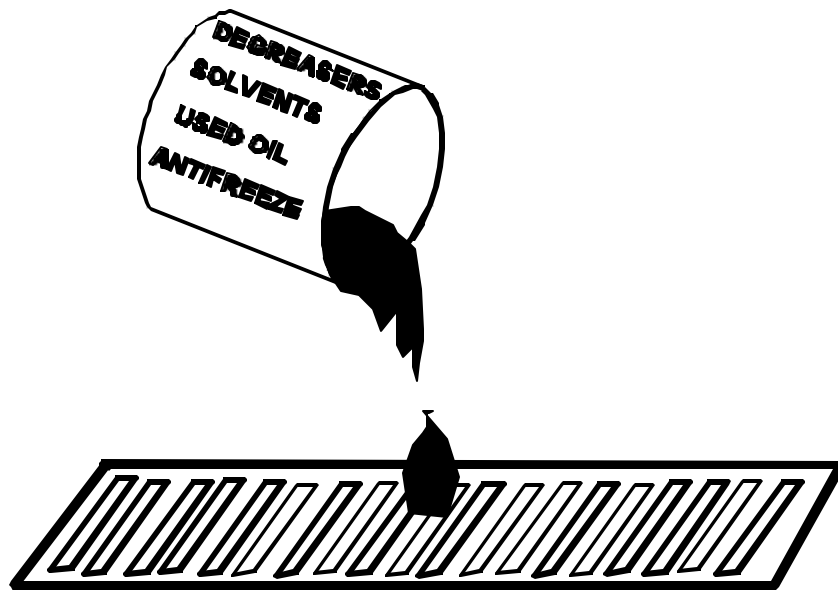




Conversion of a Motor Vehicle Waste Disposal Well -- A UIC Director's Guide DRAFT



"Class V wells at motor vehicle service facilities may not be subject to the rule, if motor vehicle waste fluids are prevented from entering the well . . ."

*-- Revisions to the Underground
Injection Control (UIC)
Regulations for Class V Wells -
Final Rule, December 1999*

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Purpose of this Document

This document outlines for Underground Injection Control (UIC) Program Directors and their staff the new requirements for allowing the reclassification or conversion of a motor vehicle waste disposal well to another type of Class V injection well. In addition, the guidance discusses other UIC requirements that may affect a conversion and additional factors that may need to be considered such as Best Management Practices (BMP's).

The SDWA provisions and EPA regulations described in this document contain legally binding requirements. This document does not substitute for those provisions or regulations, nor is it a regulation itself. Thus, it does not impose legally-binding requirements on EPA, States, or the regulated community, and may not apply to a particular situation based upon the circumstances. EPA and State decisionmakers retain the discretion to adopt approaches on a case-by-case basis that differ from this guidance where appropriate. Any decisions regarding a particular facility will be made based on the applicable statutes and regulations. Therefore, interested parties are free to raise questions and objections about the appropriateness of the application of this guidance to a particular situation, and EPA will consider whether or not the recommendations or interpretations in the guidance are appropriate in that situation. EPA may change this guidance in the future.

The Environmental Protection Agency (EPA) published the Class V Rule in the *Federal Register* on December 7, 1999. The Rule became effective on April 5, 2000. For additional information on the new requirements of the Class V Rule and the associated compliance schedules, see 64 *Federal Register* 68546 and the *State Implementation Guidance for the Revisions to the Underground Injection Control Regulations for Class V Injection Wells*.

Please Note:

This document was not developed to assist owners or operators to convert their Class V motor vehicle waste disposal well. Owners and operators should contact their UIC Program Directors for information on how to complete their conversion.



What Does EPA Consider to be a Motor Vehicle Waste Disposal Well?

The Class V Rule defines motor vehicle waste disposal wells at 40 CFR §144.81(16) as:

“wells that receive or have received fluids from vehicular repair or maintenance activities, such as an auto body repair shop, automotive repair shop, new and

used car dealership, specialty repair shop (e.g., transmission and muffler repair shop), or any facility that does any vehicular repair work.”

These wells often take the form of floor drains, sinks, or washbasins leading to drywells, cesspools, or septic systems.

CLARIFICATION:

In general, wastewater from the washing of hands would be considered sanitary waste, and the disposal of such wash water through a Class V well would not render the well a motor vehicle waste disposal well. However, a Class V well receiving floor washing water **and/or** parts washing water at a motor vehicle maintenance facility would be considered a motor vehicle waste disposal well.

Finally, the definition of a well at 40 CFR 144.3 makes no distinction between above and below grade wastewater disposal systems. A subsurface fluid distribution system such as a mound or peat biofilter system that meets the definition of a well (see Attachment C) and is used for the disposal of motor vehicle waste fluids is a Class V motor vehicle waste disposal well.

D What Are the New Regulatory Requirements for Motor Vehicle Waste Disposal Wells?

The Class V Rule:

- , Bans new motor vehicle waste disposal wells nationwide.***
- , Bans existing motor vehicle waste disposal wells (with a waiver provision) in regulated areas designated by the UIC Program Directors.***

Owners and operators of existing motor vehicle waste disposal wells in regulated areas have two options: (1) close their wells;¹ and (2) seek a waiver from the ban and obtain a permit.² An owner or operator of a motor vehicle waste disposal well may request permission to convert their motor vehicle waste disposal wells to another kind of Class V wells. Converted wells would not be subject to the new requirements found in the Class V rule.

N What are the New Requirements for Conversion of a Motor Vehicle Waste Disposal Well? (40 CFR §144.89(b))

In limited cases, the UIC Program Director may allow a motor vehicle service facility to reclassify or convert a Class V motor vehicle waste disposal well allowing only other liquids, such as stormwater or snow melt to enter the injection well. The following conversion conditions are specified in the regulation:

- c ***All motor vehicle fluids are segregated by physical barriers and are not allowed to enter the well.*** An owner or operator may be allowed to continue using their well if all motor vehicle fluids stored or generated at the facility (i.e., both products and wastes) are segregated from the well by a curb, berm, and/or other containment structures.

Note: The use of a semi-permanent plug as a means of segregating waste is not sufficient to convert a motor vehicle waste disposal well to another type of Class V well.

- c ***Injection of motor vehicle waste is unlikely based on a facility's compliance history and records showing proper waste disposal.*** The owner or operator should be able to supply documentation of their past compliance history.

¹ Before closing a Class V wells, the owner or operator must notify the UIC Program Director of their intent to close the well at least 30 prior to well closure (40 CFR §144.88(b)(1)(vii)).

² EPA envisions that UIC Directors will grant waivers through the issuances of permits. Minimum permit requirements are: (1) fluids released in the wells must meet drinking water Maximum Contaminant Levels (MCLs) and other health-based standards at the point of injection, (2) monitoring requirements for injectate and sludge, and (3) implementing best management practices, such as recycling and waste minimization (40 CFR §144.88).

Example: Owners or operators of existing motor vehicle waste disposal wells may request a conversion under limited circumstances such as: multiple bay garages in which all but one of the floor drains are closed, and the bay with the open drain only receives water from vehicle wash; or multiple bay garages in which all but one of the floor drains are closed, and the bay with the open drain receives only snow melt.

What Are the Factors to be Considered When Authorizing the Conversion of a Motor Vehicle Waste Disposal Well to Another Kind of Class V Well?

The Rule advises that UIC Program Directors use their best professional judgment when allowing a well conversion, limiting it to cases in which unintentional or illicit discharge of motor vehicle waste fluids into the well is unlikely, based on the facility's compliance history and availability of adequate records showing proper waste management and disposal.

UIC Directors must insure owners and operators comply with the following factors:

- (1) Comply with non-endangerment criteria (40 CFR §144.12) and closure requirements (40 CFR §144.89(a))***
- (2) Segregate motor vehicle fluids from the well (40 CFR §144.89(b))***
- (3) Demonstrate continuous compliance with all appropriate rules and regulations and proper waste disposal practices (40 CFR §144.89(b)).***

UIC Program Directors may also:

- (4) Specify best management practices (BMPs) such as employee training and sign posting***

NOTE: A converted well is still subject to the non-endangerment criteria at 40 CFR §144.12, the inventory requirements found at 40 CFR §144.26 and the closure criteria found at 40 CFR §144.89(a). Attachment A includes an inventory form.

(1) Comply with non-endangerment criteria (40 CFR §144.12) and closure requirements (40 CFR §144.89(a))

The definition of motor vehicle waste disposal well includes “wells that receive or have received” fluids from vehicular repair. When evaluating what an owner or operator would have to do to convert a well, UIC Program Directors should consider the history and use of the well.

For example, when you are evaluating a proposed well conversion from a motor vehicle waste disposal well to a vehicle wash well, you may want to consider the effect of large amounts of water flushing through the converted well. Based on the length of time the well was used for motor vehicle fluid disposal, and the specific wastes discharged - you may require the owner or operator to conduct a site evaluation to determine the impact of continued use of the converted well on USDWs. This site evaluation may result in the owner/ operator going through all the steps of closure (except final plugging of the well) before “re-opening” or converting the well.

- iii A well must be closed in a manner that prevents movement of contaminated fluids into underground sources of drinking water (USDWs), which may cause a violation of Maximum Contaminant Levels (MCLs) or other health-based standards, or may adversely affect public health (40 CFR §144.89(a)).** Additional or more specific closure requirements may be imposed by the UIC Program Directors.

Closure of a Class V well may include:

- C Analysis, disposal and/or management of any soil, gravel, sludge, liquids, or other materials removed from or adjacent to the well in accordance with all applicable regulations and requirements.
- C Proper cleaning of the well and attached conveyances (e.g., wastewater collection system) to remove contaminants residing in the sludge, fluid, or scum. (Note: Flushing the well may cause a violation of 40 CFR §144.12 if contaminants are present.)
- C If needed, sampling of the injectate to demonstrate the absence of motor vehicle fluid related contaminants.

(2) Segregate motor vehicle fluids from the well (40 CFR §144.89(b))

Owners and operators must use physical barriers to prevent motor vehicle fluids from entering the converted well such as:

- C Construction of curbs, berms, and/or other containment structures to isolate the well that is being converted from motor vehicle waste fluids generated or stored in other areas of the facility. A semi-permanent plug cannot be used to segregate waste.
- C Prohibition of motor vehicle service and maintenance activities in the areas that drain to the “converted” wells.
- C Prohibition of the storage of motor vehicle fluids (e.g., motor oil, antifreeze, and used motor oil and hydraulic fluids) within the perimeters of the areas that drain to the “converted” well.

(3) Demonstrate past history and continuous compliance with all appropriate rules and regulations and proper waste disposal practices.

- C Facility has a good history of compliance with appropriate regulations and requirements (e.g., submission of UIC well inventory information, results from previous UIC inspections, and absence of violations under other Federal or State requirements (such as the Resource Conservation and Recovery Act (RCRA) or Occupation Health and Safety Act (OSHA)).
- C Proper waste disposal practices and recycling, along with appropriate records of such activities.

UIC Directors may want to:

(4) Specify best management practices (BMPs) that must be implemented, such as employee training and sign posting

Attachment B lists selected BMPs that may be appropriate for motor vehicle service facilities with converted wells.

Ó Does the Owner/Operator of an Existing Motor Vehicle Waste Disposal Well Need to Provide Notification Prior to Conversion of the Well?

An owner/operator can only convert a motor vehicle waste disposal well to another type of Class V well with the permission of the UIC Program Director. The rule does not outline the process for obtaining permission. However, 40 CFR144.88(b)(1)(vii) of the Class V Rule requires owners or operators of existing motor vehicle waste disposal wells to notify the Director of their intent to close prior to converting their wells at least 30 days prior to closure. This requirement allows for a more accurate inventory, and provides a mechanism for oversight of well closures and conversions. To collect the closure information from the owner/operator, the EPA has developed a form entitled “Preclosure Notification for Closure of Injection Wells” for use by Direct Implementation Programs. Primacy Programs may use this form or modify it to collect the required information from well owners and operators prior to closing and converting their motor vehicle disposal well.

Ô Does a Converted Well Require Permitting or Monitoring?

The Class V Rule does not require permitting of converted wells and leaves such decisions to the UIC Program Director’s discretion. However, past experience has shown that a successful conversion program may require the UIC Program to conduct oversight and require owners and operators to obtain a permit and periodically monitor injectate. EPA believes that it will be important for both the owner or operator and the UIC Program Director to provide sufficient oversight to make sure compliance is being achieved.

Ö Summary

EPA's requirements for motor vehicle well conversion are as follows:

- 144.12 and 144.82 Ensure non-endangerment from Class V wells that are converted from motor vehicle waste disposal wells
- 144.26 and 144.83 Submit inventory
- 144.89(a) Close out well properly (prevent fluid movement and contamination of USDWs)
- 144.89(b) Conversion requires the use of physical barriers, preventing motor vehicle fluids from entering the wells, and a good compliance history and waste management plans of the facilities.

Additional factors the UIC Program Director may want to consider are as follows:

- Site evaluation
- Remediation
- Best Management Practices
- Oversight by UIC Program
- Monitoring to insure compliance

Ö Need More Information?

- < For additional information on the new requirements of the Class V Rule and the associated compliance schedules, see *64 Federal Register 68546* and the *State Implementation Guidance for the Revisions to the Underground Injection Control Regulations for Class V Injection Wells*.
- < For additional information on State implementation of the rule, see the *EPA State Implementation Guidance for the Revisions to the Underground Injection Control Regulations for Class V Injection Wells* (EPA No. 816-R-00-008)
- < For copies of other guides associated with the Class V Rule, visit the OGWDW Website: www.epa.gov/OGWDW

Attachment A

Preclosure Notification Form and Inventory Form
(Not provided at this time)

Attachment B

Suggested Best Management Practices (BMPs) for Motor Vehicle-Service Facilities with “Converted” Wells

Design/Physical BMPs:

Floor Drains - If floor drains must exist in areas performing motor vehicle maintenance and repair activities, they must be connected to a holding tank or sanitary sewer (with approval from the publicly owned treatment work or POTW). All holding tank waste should be disposed of properly.

(Note: Floor drains in sanitary facilities (e.g., bathroom) can be connected to a septic system or sanitary sewer.)

Work Areas - Physically separate work areas such as maintenance bays and chemical storage areas from vehicle wash bays with floor drains (e.g., using curbs, berms, or other containment structures).

Elimination of all motor vehicle service-related devices (e.g., hydraulic lift and engine diagnostic equipments) from the immediate area of a converted floor drain used for the disposal of snow melt, stormwater, and carwash wastewater.

Procedural BMPs:

Training - Employees should be trained in the proper operation of equipment; loading and unloading of materials; spill control and emergency procedures; and the reuse/recycling of materials.

Employees should be trained prior to working with equipment or handling of materials, and should be refreshed periodically or when new regulations or procedures are developed.

Employees should be made aware of Material Safety Data Sheets (MSDS) and understand the information contained on them.

Develop employee awareness about the environmental and the economic benefits of waste reduction and pollution prevention, and the consequences of ignoring environmental rules and regulations.

Communication - Post signs reminding employees not to perform motor vehicle repair and maintenance activities in the areas with converted floor drains; not to dispose of waste or spills into drains; perform proper spill control procedures; and emergency response information.

Record Keeping - Update facility plans to reflect the current configuration and copies of associated approvals and permits should be maintained on file at the facility.

Maintain waste disposal and recycling records.

Maintain inventory records for materials that are hazardous when spent and compare them to hazardous waste disposal records.

Attachment C

Special Terms Used this Guidance Document

This guidance document assumes that the reader has a basic knowledge and understanding of the Underground Injection Control (UIC) Program and its requirements. Therefore, we have included only those definitions that were added or modified as a result of the Class V Rule. Readers seeking additional information or clarification are directed to the preamble of the final rule and 40 CFR §§ 144.3 and 146.3.

Cesspool means a "drywell" that receives untreated sanitary waste containing human excreta, and which sometimes has an open bottom and/or perforated sides.

Drywell means a well, other than an improved sinkhole or subsurface fluid distribution system, completed above the water table so that its bottom and sides are typically dry except when receiving fluids.

Improved sinkhole means a naturally occurring karst depression or other natural crevice found in volcanic terrain and other geologic settings which have been modified by man for the purpose of directing and emplacing fluids into the subsurface.

Motor Vehicle Waste Disposal Well means a well that receives or has received fluids from vehicular repair or maintenance activities, such as an auto body repair shop, automotive repair shop, new and used car dealership, specialty repair shop (e.g., transmission and muffler repair shop), or any facility that does any vehicular repair work.

Point of Injection means the last accessible sampling point prior to waste fluids being released into the subsurface environment through a Class V injection well. For example, the *point of injection* of a Class V septic system might be the distribution box - the last accessible sampling point before the waste fluids drain into the underlying soils. For a drywell, it is likely to be the well bore itself.

Sanitary Waste means liquid or solid wastes originating solely from humans and human activities, such as wastes collected from toilets, showers, wash basins, sinks used for cleaning domestic areas, sinks used for food preparation, clothes washing operations, and sinks or washing machines where food and beverage serving dishes, glasses, and utensils are cleaned. Sources of these wastes may include single or multiple residences, hotels and motels, restaurants, bunkhouses, schools, ranger stations, crew quarters, guard stations, campgrounds, picnic grounds, day-use recreation areas, other commercial facilities, and industrial facilities provided the waste is not mixed with industrial waste.

Septic system means a "well" that is used to emplace sanitary waste below the surface and is typically comprised of a septic tank and subsurface fluid distribution system or disposal system.

Subsurface fluid distribution system means an assemblage of perforated pipes, drain tiles, or other similar mechanisms intended to distribute fluids below the surface of the ground.

Well means a bored, drilled, or driven shaft whose depth is greater than the largest surface dimension; or, a dug hole whose depth is greater than the largest surface dimension; or, an improved sinkhole; or, a subsurface fluid distribution system.

Well injection means the subsurface emplacement of fluids through a well.